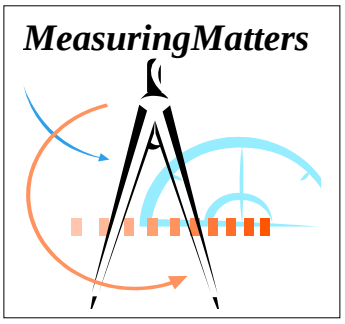
The Health of Rhode Island's Hospitals

2005 A financial analysis

MeasuringMatters

RHODE ISLAND DEPARTMENT OF HEALTH

THE HEALTH OF RI's HOSPITALS (2005)



authored by:

Bruce Cryan, MBA, MS

Rhode Island Department of Health
Center for Health Data & Analysis
(401) 222-5123
(401) 273-4350 fax
bruce.cryan@health.ri.gov

Report is available on the web at www.health.ri.gov

July, 2006

Table of Contents

I: EXECUTIVE SUMMARY

Rhode Island's non-profit community hospitals are a $2.6 billion dollar industry comprising over 8% of the Gross State Product. The hospitals' payroll approaches $1.5 billion, and they invest more than $164 million annually in new capital (construction and equipment). Because of their importance to healthcare delivery, their impact on the economy, and the large public investment they represent, there is interest in monitoring the performance of this industry.

This Report uses the Department of Health's (HEALTH's) *Hospital Financial Dataset*[1] to evaluate the finances of RI hospitals and to benchmark this to other hospitals across the country. The individual hospitals were also evaluated against each other based on their performance on eight measures over three years. This enables HEALTH to monitor the industry for financial problems, and to inform healthcare policy.

With some exceptions, RI's hospital system was generally strong and improving. Compared to their national counterparts, **in 2004**:[2]

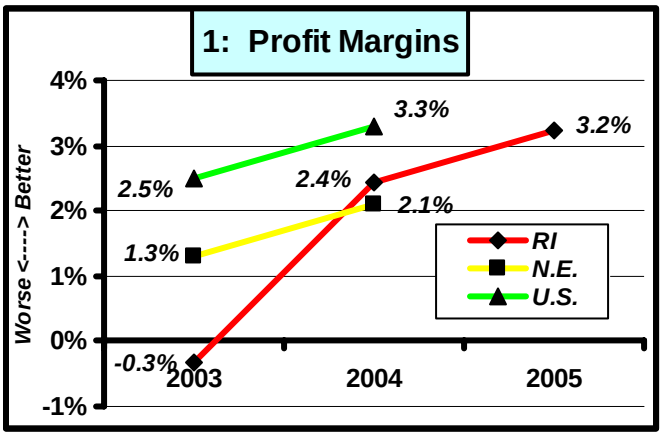
- **RI hospitals were less profitable** *(2.4% vs. 3.3% profit margins)***, but**
- **their net worth(s) grew faster** *(+12% vs. +8% equity growth rates)***,**
- **they had similar financial leverage** *(26% vs. 27% debt to capitalization)***, but**
- **greater capacity to service additional debt** *(3.6 vs. 3.1 debt service coverage)***.**
- **RI Hospitals had weaker liquidity** *(1.4 vs. 2.0 current ratios)***, but**
- **better collections of their outstanding accounts** *(50 vs. 55 days in accounts receivable)***, and**
- **they used their fixed assets more productively** *($2.63 vs. $2.46 fixed asset turnovers)***.**

In 2005, RI hospitals had a positive year, as:

- **Profitability increased from 2.4% to 3.2%,**
- **net worth grew 11%,**
- **financial leverage declined from 26% to 24%, and**
- **debt capacity increased from 3.6 to 4.**
- **Liquidity remained the same, but**
- **collections improved from 50 to 46 days.**

Profitability measures examine the generation of net income and the creation of wealth. Profitability is critical to a hospital's long-term survival because it provides the means to replace aging plants and to invest in new technologies. Statewide profit margins trailed both the regional and national benchmarks in 2003, but improved in 2004 to a position between the benchmarks (Chart 1). In 2005, statewide profit margins increased further from 2.4% to $3.2%.

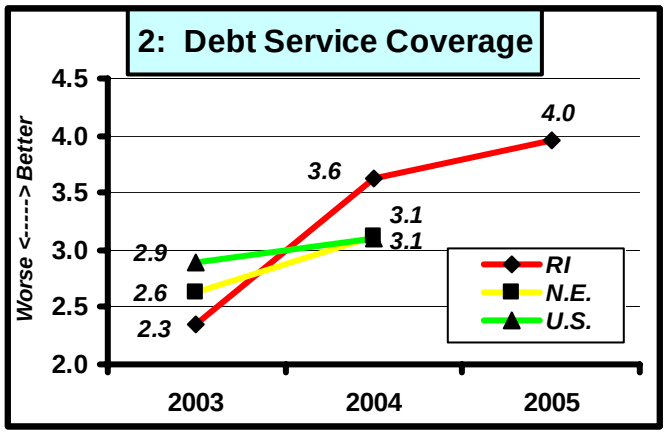
Hospital equity or net worth also improved over the period. RI posted an equity loss in 2003, below both benchmarks, but 2004's gain of +12% bested both comparables. There was a further +11% equity growth in 2005, from $1.47 to $1.64 billion.



Individually, Newport (1st), Bradley (2nd), and Miriam (3rd) had the strongest profitability indices in the state, while Westerly (13th), Landmark (12th), and South County (11th) had the weakest indices, respectively.

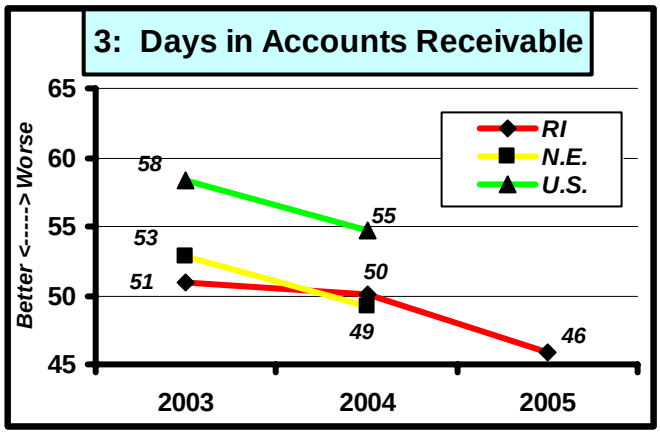
Leverage measures define the importance of debt in financing the hospital, and the ability to fund additional borrowings. Statewide financial leverage has steadily improved (i.e., lessened), and remained favorably below both the national and regional benchmarks.

Not only did RI hospitals carry low debt balances, they improved their capacity for additional financing. The ability to service the debt obligation (i.e., the *Debt Service Coverage*) beat the regional and national experiences in 2004 and further improved in 2005 (Chart 2).



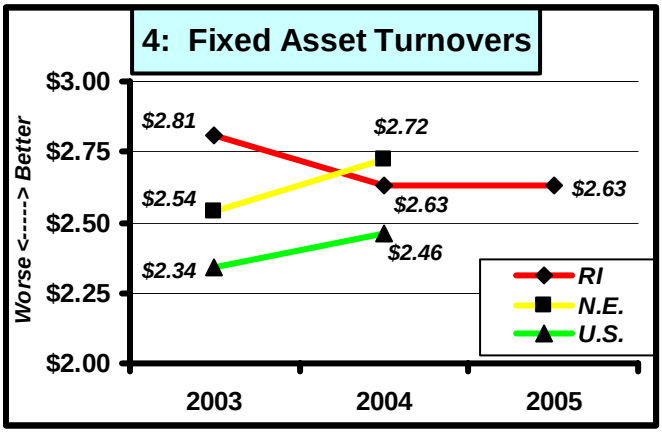
Bradley (1st), Newport (2nd), and W&I (3rd) had the strongest leverage indices in the state, while Landmark (13th), South County (12th), and Roger Williams (11th) had the weakest indices, respectively.

Liquidity measures assess the ability of a hospital to pay its short-term obligations. Deterioration in liquidity usually indicates cash flow problems when an organization experiences financial difficulty. While RI's current accounts were weaker than both benchmarks, RI's collection of receivables was consistent with the regional rate and favorably below the national rate in 2004 (Chart 3).



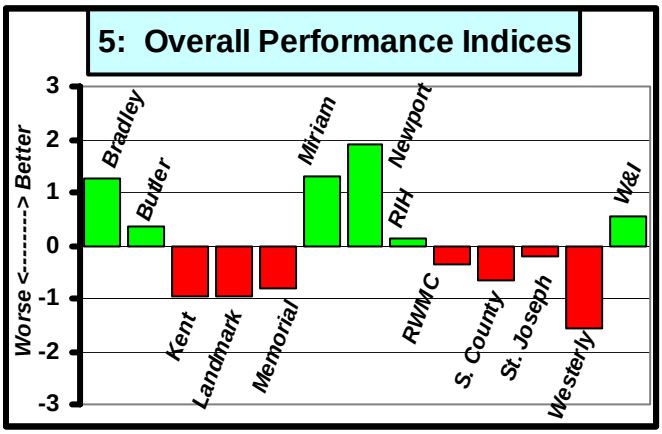
South County (1st), Newport (2nd), and Landmark (3rd) had the strongest liquidity indices in the state, while Memorial (13th), Kent (12th), and Bradley (11th) had the weakest indices, respectively.

Activity statistics examine how productively hospitals use their assets to generate revenue. Higher values indicate a more efficient use of resources, all else being equal. The *Fixed Asset Turnover* measures the number of dollars generated from each dollar invested in property, plant and equipment. The statewide value declined in 2004, but remained favorably above the national benchmark (Chart 4).



Individually, Landmark (1st), St. Joseph (2nd), and Memorial (3rd) had the highest activity indices in the state, while Newport (13th), Westerly (12th), and South County (11th) had the lowest indices, respectively.

To rank the overall performance of each hospital in the state, the four individual indices were aggregated into a composite index (Chart 5).



Newport (1st), **Miriam (2nd)**, and **Bradley (3rd)** showed the strongest overall financial performance in the state, while **Westerly (13th)**, **Kent (12th)**, and **Landmark (11th)** exhibited the weakest overall performance, respectively.

II: INTRODUCTION

The technique of ratio analysis has been used for years by investors, financiers and managers to assess the performance of businesses and hospitals. The *Health of Rhode Island's Hospitals (2005)* uses that tool to present an updated financial analysis of the State's hospital industry. It compares RI hospitals' performance over time (2003-2005), and to regional and national norms.

In addition, the Report develops indices to rank the individual hospitals on four aspects of financial performance (i.e., profitability, leverage, liquidity and activity). Lastly, a composite index is presented to rank the overall financial performance of each hospital.

The following guidelines should improve this Report's utility:

- This analysis examines financial operations only. It does not include information on clinical outcomes or patient satisfaction, both of which are additional aspects of overall performance. See HEALTH's website (www.health.ri.gov) for publications on these other topics.

- Aggregate statewide comparisons express generalities of overall performance. With every conclusion, however, there may be individual hospital exceptions. For example, RI's statewide 2004 *Current Ratio* was lower than both the national and regional values, but South County and Newport each performed better than these benchmarks.

- The primary data sources were the audited financial statements for RI's 13 community hospitals as compiled in the *Hospital Financial Dataset (2005)*. Comparable national and regional benchmark information through 2004 (the most recent year for these data), came from the *Almanac of Hospital Financial & Operating Indicators*.[3]

- The individual hospital analyses measure each hospital's performance against all the hospitals in the state, not to regional or national benchmarks. Favorable trends are always for higher values on the indices. To interpret any of the standardized indices, one concludes that a hospital's index value is so many standard deviations from the mean (i.e., the average for all RI hospitals).

- The ranking of hospitals uses the same basic methodology[4] used in two previous Reports, and a rationale is provided for each methodological decision. In addition, three years are included in the analysis to remove any vagaries associated with evaluating only a single year's performance.

- For each measure, a weighted average[5] of the 3 years' values is provide to gauge how individual hospitals performed. Again, this is in keeping with examining multi-year rather than single year's experience.

III: PROFITABILITY

Profitability measures examine the generation of net income, and the creation of wealth. Profitability is key to a hospital's long-term survival because excessive reliance on philanthropy is risky. Hospitals that are consistently unprofitable will have insufficient funds to meet current requirements, to replace aging plants or to invest in new technologies. Two profitability statistics are presented: *Profit Margin*,[6] and *Equity Growth Rates*.[7]

A. *Profit Margins* are the bottom-line profits from hospital operations and non-operations alike (Table 1). It reflects all realized gains and losses for the year.

All organizations, regardless of tax-status, need to operate profitably in order to remain viable, so higher values are always preferred

1: Profit Margins

	2003	2004	2005	*Weighted Average*[1]
Bradley	6.1%	6.8%	6.3%	*6.4%*
Butler	1.7%	-0.2%	4.5%	*2.2%*
Kent	-1.5%	0.1%	-0.1%	*-0.4%*
Landmark	-0.5%	0.7%	-0.9%	*-0.3%*
Memorial	-0.6%	0.9%	0.3%	*0.3%*
Miriam	5.2%	3.9%	4.9%	*4.6%*
Newport	2.4%	12.2%	12.0%	*9.7%*
R.I. Hospital	0.1%	2.6%	4.0%	*2.5%*
Roger Williams	-1.0%	0.3%	1.5%	*0.5%*
South County	-4.9%	-2.3%	1.2%	*-1.5%*
St. Joseph	-0.7%	0.7%	0.7%	*0.3%*
Westerly	-5.3%	-2.3%	-3.4%	*-3.5%*
Women & Infants	1.5%	2.6%	2.7%	*2.3%*
Rhode Island	*-0.3%*	*2.4%*	*3.2%*	*2.1%*
Northeast	*1.3%*	*2.1%*	---	---
United States	*2.5%*	*3.3%*	---	---

[1] *Weights are 25% for 2003, 34% for 2004 & 41% for 2005*

Low hospital profitability, both relative and absolute, has been a chronic problem in RI, although that situation has improved. The statewide margin was significantly below both the national and regional benchmarks in 2003. In 2004, RI's margin increased dramatically to end above the regional benchmark, but still below the national value. In 2005, there was further improvement in the state, with the margin increasing from 2.4% to 3.2%.

Traditionally, lower comparative *Profit Margins* usually indicate poor expense management. However, the other variable often overlooked in the profitability equation is revenue, primarily patient reimbursement.[8]

A study of 2002 hospital costs[9] found RI hospitals had the lowest reimbursement in NE, and the 8th lowest in the country. Whether this same situation still holds true in light of reported increases in provider reimbursement by the commercial payors is unclear.

B. Equity Growth Rates measures what is happening to the net worth of a hospital, or the percentage by which it is growing or shrinking (Table 2). Ideally, healthy organizations are expected to increase in value over time. Any combination of three factors may affect a hospital's *Equity Growth Rate*: profitability, fundraising, and market returns.

Any loss in equity is undesirable so higher values are always preferred. Technically, an organization is considered insolvent when its net worth becomes negative.

2: Equity Growth Rates

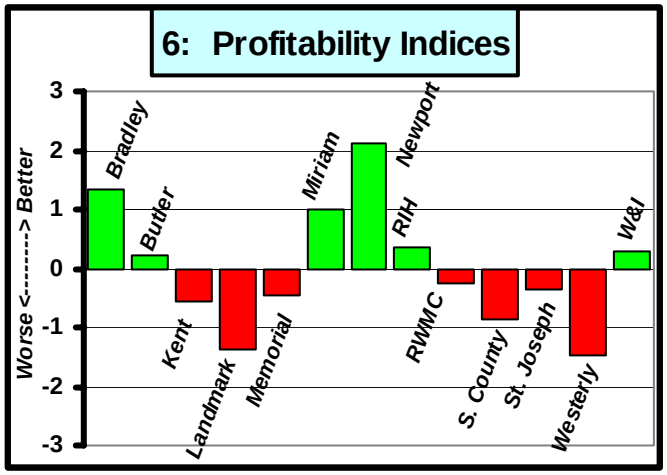
	2003	2004	2005	*'02-'05 % Change*
Bradley	13%	12%	10%	*40%*
Butler	9%	13%	11%	*37%*
Kent	-5%	19%	0%	*12%*
Landmark	-178%	181%	-180%	*-151%*
Memorial	-2%	4%	-2%	*0%*
Miriam	24%	17%	17%	*71%*
Newport	11%	9%	11%	*35%*
R.I. Hospital	13%	15%	13%	*47%*
Roger Williams	5%	10%	13%	*32%*
South County	-1%	6%	8%	*13%*
St. Joseph	2%	5%	4%	*12%*
Westerly	-2%	2%	-4%	*-4%*
Women & Infants	8%	15%	12%	*39%*
Rhode Island	*-2%*	*12%*	*11%*	*22%*
Northeast	*6%*	*8%*	---	---
United States	*6%*	*8%*	---	---

RI's absolute and relative performance on this measure was very favorable. In 2003, RI posted a loss in equity and trailed both the U.S. and NE benchmarks. In 2004, RI performance

improved to lead both the regional and national values. RI's 2004 value of +13% placed it above the U.S. median of 8% and approaching the 75th U.S. percentile of +14%.

Of particular concern were Landmark's 2003 and 2005 *Equity Growth Rates* of –178% and –180%, respectively. These both indicate negative net worths for those two years.[10] With virtually no assets to fall back on, the hospital must quickly return to continued profitability to survive.

The top ranked hospitals for overall profitability were **Newport (1st), Bradley (2nd),** and **Miriam (3rd)**, respectively (Chart 6). Newport was the most profitable hospital with the 6th largest growth in equity. Bradley was the 2nd most profitable with the 3rd highest growth in equity and Miriam was the 3rd most profitable with the largest growth in equity.



The bottom ranked hospitals for overall profitability were **Westerly (13th), Landmark (12th),** and **South County (11th)**, respectively. Westerly was the least profitable hospital with the 2nd largest loss in equity. Landmark was the 4th least profitable with the largest equity loss and South County was the 2nd least profitable with the 6th smallest gain in equity.

IV: LEVERAGE

Leverage indicates the importance of debt in financing the hospital, and the ability to incur additional debt. These ratios are closely monitored by creditors and bond rating agencies and may ultimately determine the amount of borrowing available for future capital projects. Two statistics are presented: *Debt to Capitalization*,[11] and *Debt Service Coverage*.[12]

Debt to Capitalization measures the importance of debt in the hospital's permanent capital structure (Table 3). Lower values are preferred because they indicate less financial leverage (i.e., less reliance on borrowing) and because these expenses are 'fixed' in that they are long-lived and do not vary with volume.

3: Debt to Capitalization

	2003	2004	2005	Weighted Average [1]
Bradley	0%	0%	0%	*0%*
Butler	22%	19%	18%	*19%*
Kent	30%	25%	26%	*26%*
Landmark	105%	96%	103%	*101%*
Memorial	7%	22%	21%	*18%*
Miriam	28%	24%	21%	*24%*
Newport	12%	14%	12%	*13%*
R.I. Hospital	32%	28%	26%	*28%*
Roger Williams	48%	44%	39%	*43%*
South County	24%	47%	45%	*40%*
St. Joseph	34%	33%	32%	*33%*
Westerly	27%	26%	26%	*26%*
Women & Infants	24%	21%	21%	*22%*
Rhode Island	*27%*	*26%*	*24%*	*25%*
Northeast	*36%*	*34%*	---	---
United States	*29%*	*27%*	---	---

[1] *Weights are 25% for 2003, 34% for 2004 & 41% for 2005*

In 2004, RI's statewide *Debt to Capitalization* was favorably below both the regional and national values and there was further improvement in the statewide metric in 2005.

RI hospitals have historically had lower leverage than their Northeast and U.S.peers. A contributing factor is RI's highly regulated hospital environment whereby new capital projects over $2 million ($1 million for equipment) need certificate of need[13] approval and the minimum equity funding requirement is 20% (33% for equipment acquisition). Both of these constraints tend to keep financial leverage low, all else being equal.

Landmark's 2003 and 2005 values of 105% and 103% again reflect the fact that its net worth was negative and that it was totally capitalized with debt those two years.

Low *Debt to Capitalization* values do not guarantee an ability to borrow additional monies under favorable terms, but rather, indicate the historical mix of financing. Not only is the amount of debt on the books important, but so is the ability to service that debt.

Debt Service Coverage is a key leverage ratio, equating the available cash flow to the principal and interest obligation on the debt (Table 4). Mortgage lenders use this ratio to examine the security of the debt, because it examines both a source and a use of revenue. Higher values both over time and in relation to the benchmarks are preferred.

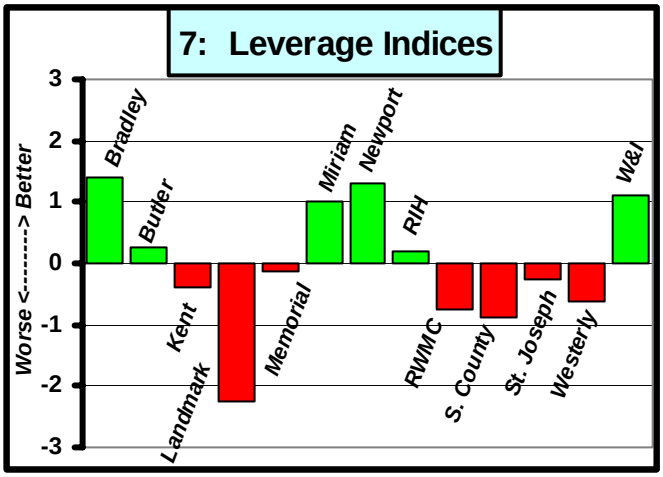
4: Debt Service Coverage

	2003	2004	2005	Weighted Average [1]
Bradley	n/a	n/a	n/a	---
Butler	3.3	2.2	4.4	*3.4*
Kent	1.4	2.2	2.2	*2.0*
Landmark	1.5	1.8	1.0	*1.4*
Memorial	2.2	2.3	2.1	*2.2*
Miriam	5.6	5.2	6.1	*5.7*
Newport	4.6	6.3	6.2	*5.8*
R.I. Hospital	2.7	3.9	4.4	*3.8*
Roger Williams	1.4	2.0	2.5	*2.0*
South County	0.6	1.5	2.1	*1.5*
St. Joseph	1.8	3.1	3.0	*2.7*
Westerly	1.0	1.7	1.3	*1.4*
Women & Infants	5.4	6.1	5.8	*5.8*
Rhode Island	*2.3*	*3.6*	*4.0*	*3.4*
Northeast	*2.6*	*3.1*	---	---
United States	*2.9*	*3.1*	---	---

[1] *Weights are 25% for 2003, 34% for 2004 & 41% for 2005*

RI's measure improved in value and ranking, from a position below both benchmarks in 2003 to one above both comparables in 2004. In 2005, RI's value improved again, from 3.6 to 4.0. The statewide improvement in 2004 came from a +31% increase in cash flow that exceeded the +9% increase in the debt burden that year.

The top ranked hospitals for overall leverage in the state were **Bradley (1st)**, **Newport (2nd),** and **W&I (3rd)**, respectively (Chart 7). Bradley had the lowest financial leverage with no long-term debt. Newport had the 2nd lowest leverage and the highest debt capacity and W&I had the 5th lowest leverage and the 2nd highest debt capacity.



The bottom ranked hospitals for leverage were **Landmark (13th)**, **South County (12th)**, and **Roger Williams (11th)**, respectively. Landmark had the highest financial leverage and the 2nd lowest debt capacity. South County was the 3rd most leveraged hospital with the 3rd lowest debt capacity and Roger Williams was the 2nd most leveraged facility with the 5th lowest debt capacity.

V: LIQUIDITY

Liquidity measures examine the ability of a hospital to meet its short-term obligations (i.e., to pay its bills), and the timing of cash into the facility. Most organizations experience a financial problem because of a liquidity crisis, and deterioration in these measures may presage future insolvency. Two liquidity statistics are examined: *Current Ratio*,[14] and *Days in Patients' Accounts Receivable*.[15]

The *Current Ratio* evaluates the amount of current assets available to pay off each dollar in obligations coming due within the year (Table 5). It is a fairly stringent measure of liquidity as it includes only assets that are, or readily convertible to cash, in the numerator.

This metric is one in which higher values are preferred, but those values shouldn't be 'excessive'. Hospitals must strike a balance between maintaining enough liquid assets for operations, but not so much as to affect profitability (i.e., *Profit Margin*). The return on short-term investments is generally less than that of monies invested longer, so there is an opportunity cost in maintaining liquidity.

5: Current Ratio

	2003	2004	2005	Weighted Average [1]
Bradley	1.4	1.5	1.9	1.6
Butler	1.3	1.1	1.2	1.2
Kent	1.2	0.9	0.8	0.9
Landmark	1.2	1.3	1.2	1.2
Memorial	1.3	1.4	1.4	1.4
Miriam	1.9	1.8	1.8	1.8
Newport	2.5	2.3	2.5	2.4
R.I. Hospital	1.5	1.5	1.4	1.5
Roger Williams	1.0	1.1	1.0	1.0
South County	3.2	3.7	3.8	3.6
St. Joseph	1.7	1.7	1.6	1.7
Westerly	0.7	0.7	0.7	0.7
Women & Infants	1.5	1.4	1.3	1.4
Rhode Island	1.4	1.4	1.4	1.4
Northeast	1.6	1.7	---	---
United States	2.1	2.0	---	---

[1] *Weights are 25% for 2003, 34% for 2004 & 41% for 2005*

Low *Current Ratio* values have been a chronic problem in RI and the period ended with RI unfavorably below both benchmarks. RI's 2004 value of 1.4 placed it equivalent to the 25th U.S. percentile value of 1.4.

Low *Current Ratio* values do not necessarily imply solvency problems if current liabilities include payments that may be rolled over (e.g., construction or bridge loans), or if there are long-term investments that may be redirected into more liquid positions. Another factor that may mitigate the need for high current assets is the efficiency by which the hospital collects its bills.

Days in Patients' Accounts Receivable measures the average time receivables are outstanding (Table 6). Lower values on this measure are favored. Patient care is the primary source of operating revenue, so prompt collection of these bills is critical. Increases in this measure can create cash-flow problems that usually cause a hospital to extend its own payables.

6: Days in Patients' A.R.

	2003	2004	2005	Weighted Average [1]
Bradley	72	54	56	59
Butler	41	40	28	35
Kent	61	60	62	61
Landmark	30	33	31	32
Memorial	87	77	70	76
Miriam	45	42	38	41
Newport	40	44	37	40
R.I. Hospital	51	48	42	46
Roger Williams	44	47	38	43
South County	60	52	51	54
St. Joseph	62	55	44	52
Westerly	42	40	40	40
Women & Infants	48	48	53	50
Rhode Island	51	50	46	49
Northeast	53	49	---	---
United States	58	55	---	---

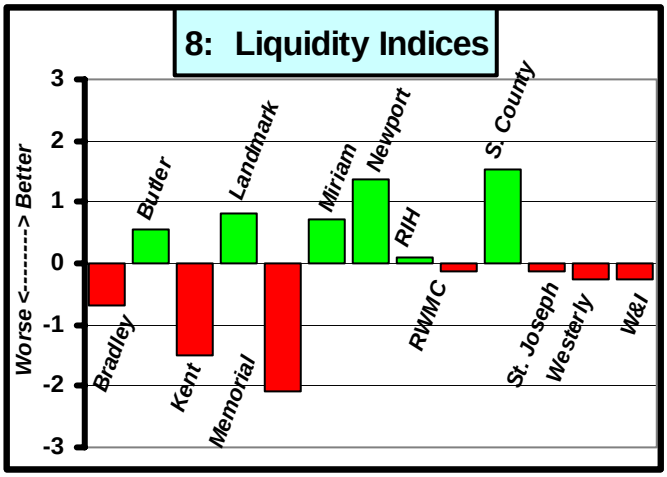
[1] *Weights are 25% for 2003, 34% for 2004 & 41% for 2005*

RI hospitals steadily improved their performance on this measure, and remained favorably below both benchmarks for the two years of comparable data. There was further improvement in 2005, with a decrease in the days outstanding from 50 to 46.

Ideally, cash-flow should favor the collections side (i.e., revenue is received faster than bills

are paid), or the hospital may need to fund its operations with a short-term loan. These borrowings are the most expensive type of credit, so they are the least desirable way to finance working capital. Fortunately, RI hospitals were generally efficient in managing their receivables despite their weak current account balances.

The top ranked hospitals in the state for liquidity were **South County (1st)**, **Newport (2nd)**, and **Landmark (3rd)**, respectively (Chart 8). South County had the strongest current account balances but the 4th longest collections period. Newport had the 2nd strongest current accounts and the 3rd shortest collections, and Landmark had the 5th weakest current account balances but the most effective collections.



The bottom ranked hospitals for liquidity were **Memorial (13th)**, **Kent (12th)**, and **Bradley (11th)**, respectively. Memorial had the 6th weakest current accounts balances, and the slowest collections. Kent had the 2nd weakest account balances and the 2nd longest collections, and Bradley had the 5th strongest account balances but the 3rd slowest collections.

VI: ACTIVITY

Activity refers to how productively a hospital uses its assets to generate revenue. Hospital revenue consists mostly of patient reimbursement (90% in 2005) and some other minor sources (e.g., endowment transfers, other operating revenue, etc.). Therefore, the numerator in these ratios is a proxy for output (i.e., services provided) and the denominator is a measure of input (i.e., the investment is some category of assets). Two efficiency measures are examined: *Total Asset Turnover*,[16] and *Fixed Asset Turnover*.[17]

The *Total Asset Turnover* is a comprehensive asset efficiency measure. It analyzes the productivity of the entire asset base (Table 7). Higher ratio values are preferred and may reflect any combination of superior reimbursement, greater utilization, or a more favorable mix of assets.

7: Total Asset Turnover

	2003	2004	2005	*Weighted Average*[1]
Bradley	$0.77	$0.87	$0.84	*$0.83*
Butler	$0.86	$0.82	$0.87	*$0.85*
Kent	$1.17	$1.20	$1.26	*$1.22*
Landmark	$2.11	$2.27	$2.37	*$2.27*
Memorial	$1.29	$1.23	$1.27	*$1.26*
Miriam	$1.09	$1.06	$1.02	*$1.05*
Newport	$0.35	$0.35	$0.34	*$0.35*
R.I. Hospital	$0.80	$0.81	$0.80	*$0.80*
Roger Williams	$1.55	$1.58	$1.50	*$1.54*
South County	$0.74	$0.71	$0.74	*$0.73*
St. Joseph	$1.59	$1.62	$1.47	*$1.55*
Westerly	$0.66	$0.71	$0.71	*$0.70*
Women & Infants	$1.07	$1.10	$1.08	*$1.09*
Rhode Island	*$0.94*	*$0.91*	*$0.90*	*$0.91*
Northeast	*$1.04*	*$1.06*	---	---
United States	*$1.02*	*$1.06*	---	---

[1] *Weights are 25% for 2003, 34% for 2004 & 41% for 2005*

RI's performance unfavorably lagged both the national and regional benchmarks every year, and was essentially flat in 2005.

As noted earlier in the profitability section, RI's historically low reimbursement rates may have contributed to this situation. Another factor may have been the composition of RI's assets. In 2005, financial assets (i.e., cash, investments and endowments) comprised almost 51% of RI's total assets. Investment income is not included in hospital revenue (and therefore not 'counted' in this measure), but is a below-the-line addition to operating income. Therefore, RI's *Total Asset Turnover* values could be depressed to the extent that the percent composition of its financial assets exceeded that of hospitals elsewhere. However, in the scheme of things, few would argue for fewer rather than greater investments.

The *Fixed Asset Turnover* is another activity ratio, measuring the number of dollars generated from each dollar invested in property, plant and equipment (Table 8). Again, higher values are preferred.

8: Fixed Asset Turnover

	2003	2004	2005	*Weighted Average*[1]
Bradley	$4.36	$4.57	$4.43	*$4.46*
Butler	$3.38	$2.76	$2.99	*$3.01*
Kent	$3.55	$2.98	$2.84	*$3.07*
Landmark	$5.47	$6.24	$5.52	*$5.75*
Memorial	$4.54	$5.11	$4.71	*$4.80*
Miriam	$3.94	$3.78	$3.68	*$3.78*
Newport	$1.17	$1.21	$1.31	*$1.24*
R.I. Hospital	$2.15	$1.99	$1.99	*$2.03*
Roger Williams	$3.33	$3.75	$3.74	*$3.64*
South County	$1.61	$1.65	$1.87	*$1.73*
St. Joseph	$3.83	$4.19	$4.24	*$4.12*
Westerly	$1.32	$1.43	$1.51	*$1.44*
Women & Infants	$3.65	$3.82	$3.48	*$3.64*
Rhode Island	*$2.81*	*$2.63*	*$2.63*	*$2.68*
Northeast	*$2.54*	*$2.72*	---	---
United States	*$2.34*	*$2.46*	---	---

[1] *Weights are 25% for 2003, 34% for 2004 & 41% for 2005*

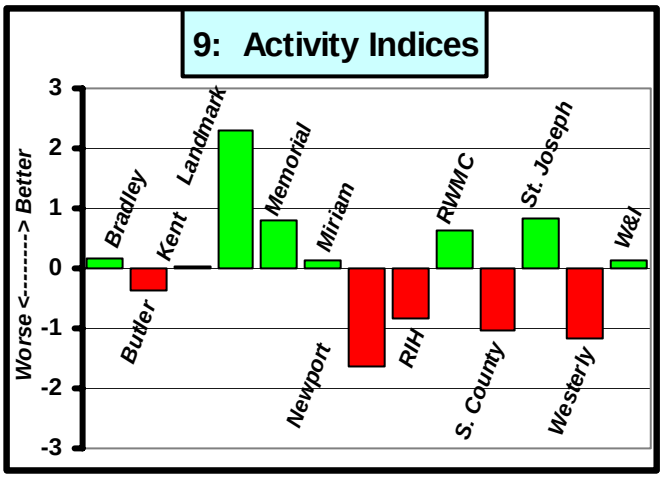
RI began the period favorably above both benchmarks in 2003, but ended below the regional and above the national values in 2004. There was no change in RI's value in 2005.

The importance in maintaining a high *Fixed Asset Turnover* is that these investments are fixed (independent of patient volume), long-lived (useful lives up to 30 years), and for most part, illiquid (not easily sold or converted to other uses).

The *Fixed Asset Turnover*, and to some extent the previous measure, favor older facilities

because of understated historical book values of the property, plant and equipment. This was the case in RI, as its hospitals were older (12.1 years) than those across the country (9.8 years), and the Northeast (10.6 years).[18]

The top ranked hospitals in the state for activity were **Landmark (1st)**, **Memorial (2nd),** and **St. Joseph (3rd)**, respectively (Chart 9). Landmark had the highest revenue generation from both its total and fixed assets. Memorial had the 4th highest total asset and 2nd highest fixed asset turnovers, and St. Joseph had the 2nd highest total asset and 4th highest fixed asset turnovers



The bottom ranked hospitals for activity were **Newport (13th)**, **Westerly (12th),** and **South County (11th)**, respectively. Newport had the lowest values, Westerly had the 2nd lowest values, and South County had the 3rd lowest values on both activity measures.

VII: HOSPITAL RANKINGS

To determine overall financial performance for the hospitals, the indices in the four ratio categories were weighted 40% for **profitability**, 25% for **leverage**, 20% for **liquidity**, and 15% for **activity**. Those weighted averages were then standardized to arrive at a single overall performance index for each hospital. Again, higher index values are preferred.

Profitability was rated most important (40%) because all other measures pale in significance. Hospitals that consistently lose money and value will not survive. It doesn't matter how low the debt burden, how strong the liquidity, or how productive the assets, an unprofitable hospital is fated for failure.

Leverage was rated second in importance (25%) because it reflects non-recourse, long-term investment in assets that essentially determine how well a hospital can compete in the marketplace. Not only must the hospital physical plant be efficient and attractive, but current technologies must also be made available to patients.

Liquidity was rated next in importance (20%), because it deals with current (under one year) obligations, none of which are likely to severely compromise the hospital in the short-term. Further, liquidity may be improved through the reallocation of assets into current positions.

Activity was rated least important (15%) because it only considers the generation of revenue and not whether the services that produce that revenue are profitable. Also, performance on activity measures is affected by the age of the physical plant, so there could be cases in which the turnovers could be high because of inordinately old fixed assets that need expensive replacement.

Table 9 presents each hospitals index values and the overall ranking of their financial performance. The hospitals are compared to each other, not to any regional or national peer groups.

9. Index Values[1]

	Profitability	*Leverage*	*Liquidity*	*Activity*	Overall Value	Overall Rank[2]
Bradley	1.35	1.41	-0.69	0.17	1.25	3
Butler	0.24	0.26	0.56	-0.38	0.35	5
Kent	-0.54	-0.40	-1.50	0.05	-0.98	12
Landmark	-1.37	-2.24	0.81	2.29	-0.96	11
Memorial	-0.45	-0.14	-2.09	0.79	-0.82	10
Miriam	1.00	1.00	0.73	0.15	1.31	2
Newport	2.11	1.31	1.36	-1.65	1.92	1
R.I. Hospital	0.34	0.21	0.09	-0.82	0.14	6
Roger Williams	-0.24	-0.74	-0.13	0.64	-0.34	8
South County	-0.87	-0.89	1.53	-1.02	-0.67	9
St. Joseph	-0.37	-0.27	-0.15	0.84	-0.19	7
Westerly	-1.47	-0.61	-0.25	-1.18	-1.55	13
W&I	0.28	1.10	-0.27	0.13	0.56	4

[1] *Higher values on all indices are preferred*
[2] *Ranked from 'top' (1) to 'bottom' performers (13)*

The **top ranked hospitals** in the state were **Newport (1st), Miriam (2nd)**, and **Bradley (3rd)**, respectively. The 2003 edition of this Report identified Miriam, Bradley, and Women & Infants as the top hospitals, respectively. Newport is new this year, having moved up in ranking from the 5th place in 2003, and Miriam just missed the top three this year by coming in 4th place.

The **bottom ranked hospitals** were **Westerly (13th)**, **Kent (12th)**, and **Landmark (11th)**, respectively. Kent and Landmark had almost identical index values of –0.98 and –0.96, respectively. The 2003 Report identified Roger Williams, Westerly, and South County as the lowest ranked hospitals. Kent and Landmark are new this year having fallen from the 7th and 8th places, respectively, in the 2003 Report. Roger Williams and South County both improved their performances to rank outside this bottom tier in this (2005) Report.

.

Appendix -Methodology

For each facility, eight measures were calculated and grouped into four categories: **profitability** (the generation of net income), **leverage** (the capacity for debt financing), **liquidity** (the ability to pay one's bills), and **activity** (the productivity of the assets). Statewide values were then compared to the corresponding national and Northeastern[19] values to evaluate hospital performance locally.

Any number of financial ratios may be calculated, however, three criteria were used in selecting the eight individual measures here. First, they had to be derived from audited data. Second, comparable benchmarks had to be available. Third, they had to be widely used and recognized both within and out of the industry as key indicators of financial performance. Each one had to provide the maximum amount of utility. For example, *Times Interest Earned* and *Debt Service Coverage* are two (out of 10^{+}) capital structure ratios. They roughly measure the same thing (i.e., debt repayment) albeit with some important differences. *Debt Service Coverage* considers the entire debt obligation (i.e., interest plus principal) and all available cash (i.e., cash-flow rather than accounting income). In addition, *Debt Service Coverage* is the primary capital structure ratio used by bond rating agencies to assess hospital creditworthiness. Therefore, for these reasons it was chosen over *Times Interest Earned*, for inclusion in this Report.

Individual hospital performance was assessed by developing four indices corresponding to the four ratio categories. To accomplish this, the individual ratios were standardized,[20] a weighted average for all ratios (and all three years) in each category was calculated, and these weighted averages were again standardized to yield a performance index. Higher values on an index always indicate superior performance. To interpret any of the standardized indices, one concludes that the index value is so many standard deviations from the mean (i.e., the average for all the hospitals). For example, Landmark's activity index is 2.3, or 2.3 standard deviations above the state average. In a 'normal' distribution, approximately 67% of the population is within +/-1 standard deviations, and 95% is within +/-2 standard deviations (of the mean). This puts Landmark at the top of the state in this measure, and examination of all other hospital activity indices bears this out. In those cases where the desired trend for an individual ratio is for lower values (i.e., *Days in Patient Accounts Receivable,* and *Debt to Capitalization*), the inverse of the standardized values were taken.[21] Relative weights given to yearly performance are 25% for 2002, 34% for 2003, and 41% for 2004. Therefore, and logically, a hospital's most recent performance is considered more important than how it operated in prior years.

Weights given to the individual **profitability** measures are 55% for *Profit Margin*, and 45% for *Equity Growth Rate*. The *Profit Margin* is the primary metric of ongoing profitability and is rated more heavily than the *Equity Growth Rate* that may be influenced by outside factors beyond the hospital's control (e.g., a financial market downturn, a worsening economy affecting charitable contributions).

Weights given to the individual **leverage** ratios are 45% for *Debt to Capitalization*, and 55% for *Debt Service Coverage*. *Debt to Capitalization* is weighted less heavily because it measures the relative amount, but not the actual cost of the debt. The *Debt Service Coverage* on the other hand, calculates the ability to repay the current debt obligation from cash-flow, so it is rated more important.

Weights given to the **liquidity** measures are 45% for *Current Ratio*, and 55 % for *Days in Patient Accounts Receivable*. The *Current Ratio* is weighted less heavily because it is a somewhat conceptual measure of liquidity at a single point in time that may be improved with the simple reallocation of investments into shorter positions. *Days in Patients' Accounts Receivable*, however, is a material liquidity statistic and is weighted higher because effective management of these accounts is essential for working capital.

Weights given to the **activity** measures are 50% for *Total Asset Turnover*, and 50% for *Fixed Asset Turnover*. The *Total Asset Turnover* is weighted 50% because it includes all assets under the control of the hospital. The *Fixed Asset Turnover* is derivative of the *Total Asset Turnover*, but it is weighted equally important because these are long-lived hard assets, not easily converted to other purposes

To determine overall financial performance, the indices in the four ratio categories are weighted 44% for **profitability**, 25% for **leverage**, 20% for **liquidity**, and 15% for **activity**. Those weighted averages are then standardized to arrive at a single overall performance index for each hospital. Again, higher values are preferred.

This page intentionally left blank

Endnotes:

[1] *(http://www.health.ri.gov/chic/performance/hospitaldataset.xls) Hospital Financial Dataset (2005), Cryan, B., HEALTH, May 18, 2006,*

[2] *Some of these same comparisons also held true when RI performance was compared to the regional (Northeast) experience, EXCEPT that: RI had GREATER profit margins, LESS financial leverage, SLOWER collections, and LESS productivity of the fixed assets*

[3] *2006 Edition, Ingenix, Inc. 1-800-765-6588*

[4] *see Appendix -Methodology*

[5] *The Equity Growth Rate measure is the exception, rather than use a weighted average, the 2002 to 2005 change in equity is used*

[6] *Profit Margin = (Net Income & Gains / Total Revenue)*

[7] *Equity Growth Rate = ((Net Assets yr.^{1} – Net Assets yr.^{0}) / Net Assets yr.^{0})*

[8] *Net Patient Revenue comprised 89.6% of statewide Total (hospital) Revenue in 2005, Hospital Financial Dataset (2005)*

[9] *(http://www.health.ri.gov/chic/performance/hospitals2002.pdf) Hospital Costs in Rhode Island (2002) ~A State by State Comparison, Cryan B., HEALTH, April 2004*

[10] *In 2005, Landmark Medical Center incured a one-time $1 million loss on bond refinancing that will benefit the hospital through lower interest expenses in subsequent years. Had the hospital not incurred this expense, Landmark Health System's net income would have been -$68,000 (essentially break-even) in 2005, and its net worth would have been +$518,000.*

[11] *Debt to Capitalization = (Long Term Debt & Capital Leases / (Net Assets + Long Term Debt & Capital Leases))*

[12] *Debt Service Coverage = ((Net Income & Gains + Interest Expense + Depreciation & Amortization) / (Interest Expense + Current Portion of Long Term Debt))*

[13] *In the Northeast, Connecticut, New Hampshire, and New Jersey have lower dollar thresholds for CON review, Maine, Massachusetts, and New York have higher dollar thresholds, and Pennsylvania has no CON review. It is unknown if any of the other Northeast CON states impose a minimum equity funding requirement for CON.*

[14] *Current Ratio = (Current Assets / Current Liabilities)*

[15] *Days in Patients' Accounts Receivable = (Net Patient Receivables / (Net Patient Revenue / 365))*

[16] *Total Asset Turnover = (Total Revenue / Total Assets)*

[17] *Fixed Asset Turnover = (Total Revenue / Net Fixed Assets)*

[18] *2004 Average Age of Plant; RI data, Hospital Financial Dataset (2004); US & NE data, Almanac of Hospital Financial & Operating Indicators, 2006 ed, Ingenix*

[19] *Includes Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, and Rhode Island*

[20] *i.e., ((individual hospital value – mean of all hospitals' values) / standard deviation of all hospitals' values), standardization enables disparate information to be compared in a statistically valid fashion regardless of differences in scale*

[21] *To preserve larger comparative values as the desired trend*

DAVID R. GIFFORD, MD, MPH, DIRECTOR, RI DEPARTMENT OF HEALTH

DONALD CARCIERI, GOVERNOR